

REMARKS

These remarks are responsive to the Final Office Action mailed on November 3, 2008 ("the Office Action"). The Applicant thanks the Examiner for a careful and thorough examination of the above-referenced Application, as well as the indication of allowable subject matter.

Status of the Claims

At the time of the Office Action, Claims 36-64 were pending all of which were rejected. Claims 36 and 62 are amended herein. Support for these amendments may be found throughout the Specification. No new matter is being submitted. Claim 64 is canceled.

On March 17, 2009, Applicant conducted a telephone interview with the Examiner. The interview involved the claim amendments provided herein. Applicant believes that the present amendments overcome the art of record, as discussed with the Examiner. Applicant also discusses the references cited in the specification of the application, as requested by the Examiner.

35 U.S.C. § 103 Rejections

The Examiner has rejected Claims 36-39, 43,47 and 59-64 under 35 U.S.C. §103(a) as being unpatentable over Muller *et al.* (U.S. 4,954,255) in view of Kahler (U.S. 5,888,262). Applicant has amended claims 36 and 62 rendering this ground of rejection moot.

During the Examiner's interview of March 17, 2009, Applicant and the Examiner discussed the rejection of Muller in view of Kahler. Applicant asserted, and the

Examiner agreed, that Muller teaches rounded portions 21 (Figure 2) which prohibit the use of spacers on the upstream and downstream side of the filtering material. These rounded base or bottom portions 21 allow cake to build up and allow for easy separation and detachment, as discussed at Column 7, lines 1-7.

Accordingly, Applicant and the Examiner then discussed the previous rejection of Kahler in view of Muller. This combination fails to teach first and second pairs of adhesive increments formed on first and second sides of the alleged pleat flanks in combination with the adhesive material or increments directly engaging each of the first and second sides of the single plane. In other words, where Kahler teaches increment material, such material is placed on an embossment and not on the single plane of the filter material as disclosed and claimed in the instant invention.

The Examiner has recited that Kahler and Muller teach each limitation of the claimed invention of the independent Claims 36 and 62. Regarding Claim 36, Applicant has amended the claim to recite that “at least first and second pairs” of engaging adhesive increments of formed material of selective length are applied to “opposed sides of successive pleat flanks and directly engage each of said first and second sides of said single plane.”

Applicant believes that the Examiner was in agreement with this language overcoming the combination of Kahler in view of Muller, since Kahler fails to teach adhesive increments in direct engagement with the single plane of the filter material, but instead teaches adhesive disposed on embossments. Moreover, the Applicant further believes that the Examiner agreed that use of Kahler in view of Muller was generally

improper since Muller taught that spaced inserts should only be positioned on a single side of the filter media.

Applicant further asserts that support for the claimed amendments may be found at the bottom of Page 11 and moving to Page 12, as discussed with the Examiner. The sets or pairs of plastic strips or adhesive material are described with respect to their position on the pleat flank material. Also, the description on Page 12 describes the selected facing increments of the first and second sets meaning that the pairs or sets of increments are opposed or facing one another. Finally, the drawings clearly depict the direct engagement of the adhesive material with the first and second sides of each single plane.

As described in Page 3, in the first full paragraph, the claimed invention provides an "efficient and economical method and apparatus involving pleating and spacing adjacent successive planks of adjacent pleats to provide uniformly extending selected V-shaped pleat spacing arrangements." This can be done as described in the patent and shown using guide rollers or an endless belt conveyor.

Regarding Claim 62, Applicant has amended the claim to require the pairs of engaging adhesive increments be formed of material which are adhered to each of the opposed planar surfaces of the adjacent opposed successive pleat flanks and that the pairs are directly adhered to these opposed planar surfaces. These amendments provided in Claim 62 are believed to limit the claim similarly to the limitations of Claim 36, and as discussed with the Examiner during the previously described interview.

In addition to the review of the cited art of the pending rejection, the Examiner asked for a review of the cited patents in the application specification at page 2 and the

top of page 3. Applicant provides a brief description of each to distinguish this art from the claimed invention.

Since the Examiner's request stems from with a discussion of U.S. Patent No. 5,071,555 issued to Enbom, Applicant begins with said reference. As currently claimed in the instant application, Enbom fails to teach adhesive material of "selected lengths **centrally oriented** between and spaced from the upstream and downstream crests." (emphasis added). Regarding U.S. Patent No. 3,531,920, the patent appears to teach a plurality of embossed spacer arrangements rather than adhesive increments disposed along the planar filter material. Regarding U.S. Patent No. 5,290,447, the patent teaches a filter having a plurality of embossed spacing structures. The reference does teach some use of adhesive material. However, the adhesive material is disposed on the surfaces of the embossment and not directly on the planar filter material, as required by the claims.

U.S. Patent No. 5,306,321 and U.S. Patent No. 5,427,597 both teach a filter medium having adhesive material placed at or near the filter laid crests. The adhesive increments are not centrally oriented spaced from the filter laid crests as required by the instant claim.

U.S. Patent No. 6,159,318 teaches a method of forming a fibrous filter media. The method, however, does not appear to teach any use of adhesive increments disposed between the faces of adjacent pleat flanks.

U.S. Patent No. 6,165,242 teaches a pleated filter media with crest spacers. Since the spacers are located in the crests of the pleats, the spacers are therefore not centrally oriented as discussed and claimed in the instant invention.

U.S. Patent No. 6,254,653 teaches a pleated fluid filter medium blend. However, the teachings appear to fail with respect to any teaching or method of use of adhesive increments disposed on the planar portions of the filter pleat flank faces. U.S. Patent No. 6,398,839 is a divisional patent of U.S. Patent No. 6,254,653 and includes the same teachings as previously described.

U.S. Patent No. 5,028,331 teaches a filter cartridge. The device utilizes a plurality of embossed spacer portions. In Figure 4, the device appears to teach an adhesive which extends across the crests of adjacent pleat flanks. However, the patent does not appear to teach any adhesive material extending from one planar portion of a first pleat flank to an opposed face of an adjacent pleat flank as currently claimed.

U.S. Patent No. 5,053,131 teaches a filter cartridge which utilizes embossed spacers. The reference further teaches a use of an adhesive positioned along the embossment surfaces. However, the method and machinery fail to teach adhesive increments positioned on the single planar surface of each pleat flank. U.S. Patent No. 5,066,319 teaches the filter cartridge previously described without the teachings of the application of adhesive material.

U.S. Patent No. 5,089,202 also teaches a method for production of a filter cartridge. The method involves use of an inferred emitter to the surface of the embossments in forming the filter cartridge. This is essentially a welding process however, the method fails to teach any use of an adhesive increment disposed on opposed faces of adjacent pleat flanks.

Finally, the Examiner requested a list of any cases claiming priority to this pending application or from which priority is claimed. U.S. Serial No. 11/757,425 (filed

on 6/4/2007) Published as US-2007-0251634-A1, is a divisional application of pending U.S. Serial No. 10/748,365.

Conclusion

The Applicant respectfully submits that the application is in condition for allowance, and reconsideration and notice of allowance are respectfully requested. If the Examiner believes that prosecution might be advanced by discussing the application with the Applicant's counsel, in person or over the telephone, the Applicant's counsel would welcome the opportunity to do so.

Respectfully submitted,

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